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09/552,981	04/21/2000	Brett D. Riggs	PACACC.001CP1	6469

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EXAMINER

GRAHAM, ANDREW R

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/552,981

Applicant(s)

RIGGS, BRETT D.

Examiner

Andrew Graham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 18-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/22/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on November 22, 2004 was filed after the mailing date of the first action on November 24, 2003. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner.

Drawings

2. The amendments made to the specification in light of the previous objections to the drawings as failing to comply with 37 CFR 1.84 are acknowledged and are sufficient to overcome said objections. Accordingly, said objections are hereby withdrawn.

New corrected drawings remain required in this application because of the reasons listed on the Draftsperson's Review, form PTO-948, transmitted with the prior office action on November 24, 2003.

Specification

3. The amendment made to the disclosure in light of the previous objection to disclosure because a minor informalities, is acknowledged and is sufficient to overcome said objection. Accordingly, said objections is hereby withdrawn.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-15 and 18-23** are rejected under 35 U.S.C. as being unpatentable over the applicant's admitted prior art in view of Kirson et al (USPN 6114970) and Bush et al (USPN 6397186). Hereafter, "Kirson et al" and "Bush et al" will be referred to as "Kirson" and "Bush", respectively.

The applicant's admitted prior art discloses that replacement or aftermarket stereo receivers are known in the art, including those with infrared remote controls. Replacement stereo receivers are disclosed as being controllable through the use of a wireless remote (page 3, lines 1-6). This wireless interface for typical aftermarket stereos is specifically disclosed as being infrared, through the use of an IR receiver (page 8, lines 1-3). Physical inputs on the remote device are translated into wireless signals that, when emitted in the direction of the stereo replacement receiver, control the operation of the receiver (page 3; lines 4-6 and 12-15). The

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output of an IR signal from a remote device reads on "produces at least one output signal to a replacement stereo device receiver lacking voice command capability and installed in a vehicle to replace an originally installed radio receiver". Some replacement stereos are noted as including voice recognition features, which infers that at least one, though not necessarily all replacement stereo receivers include such a feature (page 3, lines 30-32).

However, the applicant's admitted prior art does not specifically disclose:

- that the remote device receives at least one command from one or more local stereo control buttons positioned within a vehicle
- that the local stereo control button can be used to control the operation of the replacement stereo receiver

Kirson discloses a method for uniquely addressing after-market and secondary electronic devices added to the communications architecture of a vehicle. The involved system includes an intelligent transportation systems data bus, an add-on communications device that enables state of the art electronics to interface original equipment manufacturer (OEM) devices, including OEM controls (col. 2, lines 19-28 and 65-67; col. 3, lines 1-10). The OEM equipment includes steering wheel controls (16), and in-dash display (18), a door lock system (20),

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and other vehicle systems (24) (col. 3, lines 1-3). The gateway (26) enables signals originating from devices on the OEM bus (12) to be communicated to devices additional electronic devices on the ITS bus (14) and signals originating from the ITS bus (14) to be received on the OEM bus (12) (col. 3, lines 5-26). An example of operation particularly involves the use of the steering wheel controls (16) with devices (28,38) on the bus (14), one of which is particularly communicated with through the IR interface (34) (col. 3, lines 15-32). Arrows in Figure 1 clearly indicate that the coupling via the IR port is a two-way communication connection. The use of such an input device (16) with the ITS bus and gateway (14,26) for communicating with an added state-of-the-art electronic device (28 or 38) reads on an interface device that receives "at least one command from one or more local stereo control buttons positioned within a vehicle". The production of an output signal to a component (28) on the ITS bus through the use of an OEM control (16), in view of the two way communication of the port (34) and the known, remote IR control capabilities of the applicant's admitted prior art, reads on "producing an output signal" such that "the local stereo control button command can be used to control the operation of the replacement stereo receiver".

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to incorporate the gateway and bus system of Kirson into the control scheme of the audio equipment system of the applicant's admitted prior art.

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The motivation behind such a modification would have been that the bus interface system of Kirson would have enabled the use of the original manufacturer's controls - as is taught by Kirson - for communication and control of connected, state-of-the-art devices, including those with wireless couplings, such as the replacement receiver of the applicant's admitted prior art. Such a modification would have provided separate set of input controls from those included on a replacement stereo receiver, increasing the manners through which the respective appliances would have been potentially controlled.

However, the applicant's admitted prior art in view of Kirson does not specify:

- that the device receives at least one voice command
- that the voice command can be used to control the operation of the replacement stereo receiver

Bush teaches a voice-controlled, hands-free universal remote control for use with various electrical appliances. To promote portability, the device of Bush may be battery operated, and in order to promote a reduced power consumption, the device is also able to enter a sleep mode when no input voice commands are detected (col. 7, lines 7-15). The device comprises an input microphone (20), a speech recognition circuit (50), and light emitting diodes (80) for conducting the main function of the device (col. 7, lines 22-32). The control data emitted by the diodes (80) is derived from the recognition of input voice

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commands (col. 8, lines 6-16). Being a 'universal' remote control, the device is capable of interfacing with virtually any device that is amenable to remote control through the use of either preprogrammed control codes, or the ability to learn the particular control codes for a respective device (col. 30, lines 39-49). An infrared receiver (71) and the at least one infrared emitting diode (80) enables the device to both receive wireless signals from the original remote control device as well as emit its own wireless signal to the appropriate appliance (col. 8, lines 39-62). As the output of the device is based on an input, recognized voice command, the operation of the components of the device of Bush read on "the voice control interface device receives at least one voice command" and the at least one voice command "can be used to control the operation of the replacement stereo receiver" (col. 8, lines 11-38).

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to implement the voice recognition and necessary input components of Bush to be associated with the gateway, ITS bus, and particularly the IR port of the system of the applicant's admitted prior art in view of Kirson. The motivation behind such a modification would have been that the device of Bush would have provided the replacement receiver with voice controlled capabilities in a simple, programmed or pre-programmed manner. Kirson notes the association of memory with each add-on node of the ITS bus, which includes the illustrated IR port (34) (col. 3, lines 10-14); the

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circuitry of Bush would have provided a manner of selectively establishing and changing the operating information stored therein, while enabling a variety of external devices to be programmably controlled with voice commands, coupled through the IR port.

Regarding **Claim 3**, the device of Bush includes the ability to learn the infrared signal of the respective remote controls of various devices, a flowchart of the operation of which can be seen in Figures 14a-14b (col. 30, lines 46-49). The flowchart includes a step for receiving the infrared or other wireless signal from an original or otherwise capable, separate controller through the infrared receiver (71) (col. 39, lines 14-19). This part of the learning procedure reads on "the voice control interface device receives a first wireless signal from a handheld remote control upon a user depressing a first function key on the handheld wireless remote control to change a first function of the replacement stereo receiver". After the received infrared code is stored and associated with a voice command, the device of Bush is then able to later transmit the learned code based upon the reception and recognition of the corresponding voice command (col. 39, lines 44-48). This aspect of the device's operation reads on "the voice control interface produces a signal corresponding to the first wireless signal in response to a user speaking a first voice command".

Regarding **Claim 4**, the "learning" process of the device of Bush, which enables the infrared codes of other controllers to be

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uplicated and associated with voice commands involves storing the codes of other controllers in a read/write memory (72) (col. 39, lines 28-33). The user specific voice commands are also stored for the device in a read/write memory (54) (col. 40, lines 7-14). These aspects and respective operations of the "learning" and "training" processes read on "the voice control interface device includes a memory and is programmable so as to store wireless signals corresponding to the at least one voice command". Bush specifically teaches that a successfully learned and stored infrared signal may be later transmitted by the device upon reception and recognition of the corresponding voice command, which reads on "such that subsequent speaking of the at least one voice command results in a corresponding wireless signal being sent to the replacement stereo".

Regarding **Claim 5**, Bush discloses that pressing a combination of buttons on the device may be used to effectively "erase" the read/write memory so that difference command data may be stored in the memory (54) (col. 41, lines 39-49). This "erasure" is effectively performed by resetting the address pointer for the memory (54) to zero so that subsequent write operations to the memory overwrite the previously stored data (col. 41, lines 42-46). This function and the involved components reads on "the memory is rewritable and the voice control interface device further comprises a switching device to enable the user to selectively reprogram voice commands".

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Regarding **Claim 6**, as noted in regards to Claim 1, the device of Bush includes an infrared receiver (71) and at least one infrared emitting diode (80) that enables it to both receive wireless signals from the original remote control device as well as emit its own wireless signal to the appropriate appliance (col. 8, lines 39-62). These components, and their respective functions read on "the voice interface device includes a wireless receiver and a wireless transmitter". The remaining features listed in the Claim are performed by these components (71,80), or have been addressed previously in regards to Claims 1-5.

Regarding **Claim 7**, the applicant's admitted prior art notes that the voice controlled interface of the Jaguar 2000 S Type includes the abilities of locking doors and controlling headlights (page 3, lines 23-27). The applicant's admitted prior also notes that some replacement stereos are equipped with voice recognition features (page 3, lines 30-32). As discussed previously, the device of Bush is able to control a wide variety of appliances including non-entertainment appliances (col. 7, lines 1-7). This wide range of application of the invention of Bush in view of the prior known features that are controllable within a vehicle reads on "outputs to control at least one aspect of a vehicle such as turning on a light".

Regarding **Claim 8**, please refer to the like teachings of Claim 1, while also noting the well-known concept of installing a replacement stereo receiver for a vehicle in the vehicle.

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Regarding **Claim 9**, please refer to the like teachings of Claim 2. Regarding **Claim 10**, please refer to the like teachings of Claim 3. Regarding **Claim 11**, please refer to the like teachings of Claim 4. Regarding **Claim 12**, please refer to the like teachings of Claim 5. Regarding **Claim 13**, please refer to the like teachings of Claim 6. Regarding **Claim 14**, please refer to the like teachings of Claim 7.

Regarding **Claim 15**, please refer to the like teachings of Claims 1 and 8, noting that the use of a voice controlled system in a vehicle is well-known in the art to respond to voice commands from persons within the vehicle.

Regarding **Claim 18**, the applicant discloses that handlebar stereo controls are often included on a motorcycle for the convenience of the rider (page 8, line 30 through page 9, line 5). In view of the disclosure of Kirson, it would have been obvious to incorporate an interface device of Kirson into the control scheme of any vehicle that can receive a replacement stereo receiver in order to retain utility of these original controls. This reads on "the vehicle comprises a motorcycle and the at least one remote control signal comprises a signal from at least one switch positioned adjacent the handlebars of the motorcycle".

Regarding **Claim 19**, please refer to the like teachings of Claim 2. Regarding **Claim 20**, please refer to the like teachings of Claim 3. Regarding **Claim 21**, please refer to the like teachings of Claim 4. Regarding **Claim 22**, please refer to the

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like teachings of Claim 4. Regarding **Claim 23**, please refer to the like teachings of Claim 6.

Response to Arguments

5. Applicant's arguments filed May 27, 2004 have been fully considered but they are not persuasive.

The remarks made in particular regards to the previous rejections under U.S.C. 102/103 in view of applicant's admitted prior art and the rejections made under U.S.C. 103(a) in view of the applicant's admitted prior art in view of Bush are considered moot in view of the new grounds of rejection, which have been presented in response to the applicant's most recent amendments.

The following response applies to remarks made particularly in regards to references applied in the previous office action, in light of the maintained use of such references in the above rejections.

On page 11, lines 7-9, the applicant has stated, "even if the teachings of Bush were combined with this prior art, the resultant would be a replacement stereo receiver in combination with the Bush device providing solely voice command control of the replacement stereo receiver". The examiner respectfully disagrees. The presented context of the invention of Bush is "entertainment appliances", such as TVs and VCRs. Such appliances are well-known to include integrated controls that work in concordance with received remote control signals, not at the exclusion of one or the other. The applicant's admitted

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prior art further teaches that such controls still exist on the replacement stereo receiver in the context of a remote control, even though such controls are, based on environmental conditions, not preferable in certain situations (page 3, lines 4-6).

On page 11, lines 12-13, the applicant has stated, "the Applicant notes that Bush specifically teaches away from interfacing tactilely operated user controls to electronic devices". The examiner respectfully disagrees. The reference of Bush is silent in regards to the elimination or rendering inoperable of tactile user controls. Because a source or type of input is no longer required to operate the system does not mean that it is inherently removed from the system. While the reference of Bush states that the invention disclosed therein "enables a user to control the function of one or more electric appliances or other electrical equipment solely with voice commands" (col. 4, lines 27-30), this does not mean, for example, that the formerly-operated, tactile remote is no longer functional. In the context of Bush learning the IR signals of such a remote and repeating the same signals as output in response to associated voice inputs, it is inferred that the original IR controls of the tactile remote control would retain the ability to control the device, even if not required to remotely control the device.

On page 12, lines 4-7, the applicant has stated, "Kirson et al fails to teach actually providing an interface to an after market stereo receiver that would allow a user to control the

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operation of the replacement stereo receiver either with spoken voice commands or user actuation of local stereo control buttons". The examiner respectfully submits that the rejection of the relevant claims in the prior office action were made in regards to the applicant's admitted prior art as well as Kirson, not Kirson alone. Kirson teaches the use of an ITS bus for addition of aftermarket or state-of-the-art devices to the control and communication electrical system of a vehicle (col. 2, lines 7-28). An example of system operation involves the use of an OEM control to operate one such aftermarket or state-of-the-art electronic device (col. 3, lines 5-32). The system of Kirson teaches the inclusion of an IR port (34) for use with aftermarket or state-of-the-art device. The applicant's admitted prior art discloses that one particular type of aftermarket device for a vehicle, which may be operated through the use of IR signals, is a stereo receiver. The reference of Bush teaches the concept of enabling a remote control device, particularly one that includes an IR port, to be programmably voice activated. It is the combination of these teachings, and the particular benefit disclosed by Kirson of enabling an OEM control to operate an add-on device, that were used to reject the prior claim limitations, and as is similarly repeated above.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Häb-Umabch et al (USPN 5950166) teaches the a speech activated control system for a user product, the product being particularly disclosed as an automobile, that involves the use of both voice activation circuits and manual actuators physically integrated into a the product, such as in the vehicle steering wheel.

Synamow (USPN 5999104) discloses a system for customizing user input controls for a vehicle, including a steering wheel control panel.

Shitanaka et al (USPN 5949149) discloses an infrared coupled radio and vehicle device control that includes one embodiment wherein the control is integrated into the steering wheel.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing

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date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Graham whose telephone number is 703-308-6729. The examiner can normally be reached on Monday-Friday, 8:30 AM to 5:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huyen Le can be reached at (703)305-4844. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

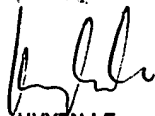
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Andrew Graham
Examiner
A.U. 2644

ag

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January 3, 2005


HUYEN LE
PRIMARY EXAMINER